AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 03/01099 filed on April 3, 2003.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0003] with the following amended paragraph:

[0003] ~~Background of the Invention~~ Description of the Prior Art

Please replace paragraph [0004] with the following amended paragraph:

[0004] For reasons of strength, the attainable pressure level in reservoir-type injection systems (common rails) used at present is currently limited to about 1600 bar. To further increase the pressure in reservoir-type injection systems, a pressure booster can be employed in common rail systems. European Patent Disclosure EP 0 562 046 B1 discloses an actuation and valve assembly with damping for an electronically controlled injection unit. The actuation and valve assembly for a hydraulic unit has an electrically excitable electromagnet assembly with a fixed stator and a movable armature~~. The armature has~~ having a first and a second surface~~. The first and second surfaces of the armature define~~ defining a first and second high-pressure chamber, and the first surface of the armature points toward the stator. A valve ~~is provided which is~~ connected to the armature~~. The valve~~ is capable of carrying a hydraulic actuating fluid from a sump to the injection system. With respect to one of the high-pressure chambers of the electromagnet assembly, a damping fluid can be accumulated there or drained off from there. By means of a region of a valve needle that protrudes into a central bore, the fluidic communication of the damping fluid can be opened or closed selectively, in proportion to the viscosity of the fluid.

Page 2, please replace paragraph [0005] with the following amended paragraph:

[0005] German Patent Disclosure DE 101 23 910.6 relates to a fuel injection system~~. This fuel injection system is~~ used in an internal combustion engine~~. The~~ whose combustion chambers ~~of the engine~~ are supplied with fuel via fuel injectors. The fuel injectors are acted upon via a high-pressure source; the fuel injection system also includes a pressure booster, which has a movable pressure booster piston that divides a chamber which can be connected to the high-pressure source from a chamber that communicates with the fuel injector. The fuel pressure in the high-pressure chamber can be varied by filling a differential pressure chamber of the pressure booster device with fuel or by emptying fuel from the differential pressure chamber of the ~~fuel~~ pressure booster.

Page 3, please replace paragraph [0009] with the following amended paragraph:

[0009] ~~Summary of the Invention~~ SUMMARY OF THE INVENTION

Page 4, please replace paragraph [0013] with the following amended paragraph:

[0013] ~~Drawing~~ DESCRIPTION OF THE DRAWINGS

Please replace paragraph [0014] with the following amended paragraph:

[0014] The invention is described in further detail below in conjunction with the drawings in which: ~~drawing.~~

Please delete paragraph [0015].

Please replace paragraph [0016] with the following amended paragraph:

[0016] Fig. 1~~, the~~ is a hydraulic circuit diagram of a fuel injector with a pressure booster, a Vario injection nozzle, and a coaxial nozzle needle, in a first variant embodiment;

Please replace paragraph [0017] with the following amended paragraph:

[0017] Fig. 2~~, the~~ is a hydraulic circuit diagram of a fuel injector with a pressure booster and a Vario injection nozzle and with a closing chamber acted upon directly via a high-pressure reservoir;

Page 5, please replace paragraph [0020] with the following amended paragraph:

[0020] ~~Variant Embodiments~~ DESCRIPTION OF THE PREFERRED EMBODIMENTS

Page 6, please replace paragraph [0024] with the following amended paragraph:

[0024] From the pressure chamber 11 of the pressure booster 5, a line 18 branches off to a control valve 8 ~~, embodied as a magnet valve 8,~~ which in the variant embodiment shown in Fig. 1 of the fuel injection system proposed by the invention is embodied as a magnet valve. In the basic state shown in Fig. 1, the lead line 18 from the pressure chamber 11 of the pressure booster is in communication with a fuel line 19, by way of which the differential pressure chamber 16 of the pressure booster 5 is acted upon by fuel. From the differential pressure chamber 16, in the variant embodiment of the fuel injection system shown in Fig. 1, a differential pressure chamber line 22 leads to a closing chamber 21 in the upper region of the injection valve 6. In the basic state of the fuel injection system shown in Fig. 1, the pressure prevailing in the high-pressure reservoir 2 is present via the line 4 in the pressure chamber 11 of the pressure booster 5, at the magnet valve 8, ~~via the fuel line 19~~ at the differential pressure chamber 16 of the pressure booster via the fuel line 19, and ~~via the differential pressure chamber line 22~~ in the closing chamber 21 of the injection valve via the differential pressure chamber line 22 6. Via a check valve 24, preceding the high-pressure

chamber 20, the pressure of the high-pressure reservoir 2 is present in both the high- pressure chamber 20 and the nozzle chamber 29.

Page 7, please replace paragraph [0027] with the following amended paragraph:

[0027] The injection valve 6 shown in Fig. 1, in the variant embodiment of the fuel injection system proposed by the invention, includes a coaxial nozzle needle 30, which contains a first nozzle needle part 31 and a second nozzle needle part 32. The nozzle needle part ~~parts 31 and~~ 32 ~~are~~ is guided inside ~~one another and~~ nozzle needle part 31, and the parts 31, 32 are actuatable independently of one another. The first nozzle needle part 31 is movable up and down vertically inside the housing of the injection valve 6. The stroke limitation of the first nozzle needle part 31 is provided by an annular stop 33 let into the closing chamber 21 of the injection valve 6. By means of the annularly embodied stop 33 in the closing chamber 21, the maximum stroke length is specified to and limited for the first nozzle needle part 31. Moreover, the closing chamber 21 of the injection valve 6 includes a pinlike stop 34, which serves as stroke limitation for the second nozzle needle part 32, coaxially guided in the first nozzle needle part 31, of the coaxial nozzle needle 30. In the variant embodiment of Fig. 1, a disklike stop face 37 is embodied in the upper region of the second nozzle needle part 32; it cooperates with the stop 34, acting as a stroke limitation, disposed inside the closing chamber 21 and predetermines the vertical motion of the second nozzle needle part 32 inside the housing of the injection valve 6.

Please replace paragraph [0028] with the following amended paragraph:

[0028] Inside the closing chamber 21 of the injection valve 6 in the variant embodiment of Fig. 1, both the first nozzle needle part 31 and the second nozzle needle part 32 are acted upon by a respective spring element 38 and 39. The spring element 38 that acts on the first

nozzle needle part 31 is braced on a face end 36 of the first nozzle needle part 31, while the spring element 39, surrounding the pinlike stop 34, rests on the face end 37 of the second nozzle needle part 32. The closing chamber 21 shown in Fig. 1 is acted upon by fuel from the differential pressure chamber 16 of the pressure booster 5 via the differential pressure chamber line 22; in the region of its orifice into the closing chamber 21, the differential pressure chamber line 22 may contain a throttle restriction 23. The line 25 ~~discharging~~ from the check valve 24 ~~into the closing chamber 21~~ can discharge into the closing chamber 21; instead of the check valve 24 integrated with the line 25 as in Fig. 1, the throttle restriction 24.1 shown in suggested fashion in Fig. 1 may also be let into the line 25, between the high-pressure chamber 20 of the pressure booster 5 and the closing chamber 21.

Page 8, please replace paragraph [0029] with the following amended paragraph:

[0029] The first nozzle needle part 31, shown in Fig. 1, of the coaxial nozzle needle 30 includes a hydraulically effective surface area 35, which in the embodiment shown is embodied such that it extends conically in the form of a pressure shoulder 35. The pressure shoulder 35 on the outer circumferential surface of the first nozzle needle part 31 is entirely surrounded by the nozzle chamber 29 of the injection valve 6. From the nozzle chamber 29 of the injection valve 6, an annular gap 50 extends as far as the end toward the combustion chamber of the injection valve 6. The second nozzle needle part 32 likewise includes a hydraulically effective surface area 40 (Fig. 4) in the form of a pressure shoulder, which is embodied on the end toward the combustion chamber of the second nozzle needle part 32. In accordance with the design of the hydraulically effective surface area 40 on the end toward the combustion chamber of the second nozzle needle part 32 and the design of the spring element 39 acting on the second nozzle needle part 32, a switching pressure at which the

inner nozzle needle part ~~31~~ 32 of the coaxial nozzle needle 30 opens as shown in Fig. 1 can be set to suit the dimensioning.

Page 10, please replace paragraph [0033] with the following amended paragraph:

[0033] The mode of operation of the variant embodiment of the invention shown in Fig. 1 is as follows: Via the line 4, the pressure prevailing in the high-pressure reservoir 2 is present at the fuel injector 1. In the basic state shown in Fig. 1, the magnet valve 8 is not triggered, and no injection is taking place. Accordingly, the pressure prevailing in the high-pressure reservoir 2 is present both in the pressure chamber 11 of the pressure booster 5 and at the aforementioned magnet valve 8. Furthermore, the pressure prevailing in the high-pressure reservoir 2 is present in the differential pressure chamber 16 of the pressure booster 5, via the magnet valve 8 that has been switched to the open position and via the fuel line 19. Moreover, the rail pressure prevails in the closing chamber 21 of the injection valve 6, via the differential pressure chamber line 22 and the throttle restriction 23 received in it, and flows from the closing chamber 21 of the injection valve 6 in the opening direction of the check valve 24 into the high-pressure chamber 20 of the pressure booster 5. From the high-pressure chamber 20 of the pressure booster 5, the fuel in turn flows via the high-pressure line 28 into the nozzle chamber 29 of the injection valve 6. Accordingly, in the basic state, all the pressure chambers 11, 16 and 20 of the pressure booster 5 are acted upon by the pressure level prevailing in the high-pressure reservoir 2, and the partial pistons 13 and 14 of the pressure booster 5 are in pressure equilibrium. In this basic state of the system shown in Fig. 1, the pressure booster 5 is deactivated, and no pressure boosting takes place. In this state, the piston 12 of the pressure booster 5 is moved, via the restoring spring 17 associated with it, into its outset position, in which filling of the high-pressure chamber 20 of the pressure

booster 5 is effected from the closing chamber 21 of the injection valve 6, via the check valve 24. By means of the pressure prevailing in the closing chamber 21, a hydraulic closing force on the nozzle needle part 31 and 32 of the coaxially embodied nozzle needle 30 is built up. In addition, the first nozzle needle part 31 and the second nozzle needle part 32 are urged into the closing position via the spring elements 38 and 39 disposed in the closing chamber 21. The pressure level prevailing in the high-pressure reservoir 2 can therefore prevail constantly, via the high-pressure line 28, in the nozzle chamber 29 of the injection valve 6, without the first nozzle needle part 31 opening in response to the pressure action of the fuel on the pressure shoulder 35. Only when the pressure in the nozzle chamber 29 rises above the pressure prevailing in the high-pressure reservoir 2, which happens because the pressure booster 5 is switched on, does the first nozzle needle part 31 open and the injection begin.

Page 11, please replace paragraph [0034] with the following amended paragraph:

[0034] The metering of the fuel is effected by means of a pressure relief of the differential pressure chamber 16 of the pressure booster 5. This is attained by providing that the magnet valve 8 is activated, and as a result, fuel flows from the differential pressure chamber 16 via the fuel line 19 out into the low-pressure-side outlet 9, so that the differential pressure chamber 16 of the pressure booster 5 is cut off from the system pressure supply. As a result, the pressure in the differential pressure chamber 16 of the pressure booster 5 drops, causing the pressure booster 5 to be activated, and the pressure in the nozzle chamber 29 rises, since the activated pressure booster 5 causes an increase in the pressure in the high-pressure chamber 20, by way of which the nozzle chamber 29 is acted upon by fuel. As a result, at the hydraulic surface area 35 of the first nozzle needle part 31 - embodied here as a pressure shoulder - an opening force oriented counter to the force of spring ~~force~~ 38 ensues, causing

the first nozzle needle part 31 to move vertically upward. The high pressure prevails in the nozzle chamber 29 ~~until such time~~ for so long as the differential pressure chamber 16 is pressure-relieved into the low-pressure-side outlet 9 via the switched magnet valve 8. Because of the pressure relief of the differential pressure chamber 16, the closing chamber 21 of the injection valve 6 is also relieved, via the line 22, into the differential pressure chamber 16 of the pressure booster 5, which in turn is relieved via the aforementioned line 19 to the low-pressure side 9 of the fuel injection system. As long as the differential pressure chamber 16 of the pressure booster 5 is pressure-relieved, the pressure booster 5 remains activated and compresses the fuel in the high-pressure chamber 20. The compressed fuel is carried via the nozzle chamber 29 along the annular gap 50 to the first injection cross section 42, which is uncovered as a result of the vertical upward motion of the first nozzle needle part 31, so that the fuel flowing in via the annular gap 50 is injected via the first injection cross section 42 into the combustion chamber 7 of the self-igniting engine. ~~**As a result of the pressure relief of the differential pressure chamber 16 of the pressure booster 5, the closing chamber 21 of the injection valve 6 is pressure-relieved.**~~

Page 13, please replace paragraph [0036] with the following amended paragraph:

[0036] For terminating the injection, the magnet valve 8 is switched so that the differential pressure chamber 16 of the pressure booster 5 and closing chamber 21, communicating with the differential pressure chamber 16 via the line 22, are both disconnected from the low-pressure side 9 of the magnet valve 8. As a result, the differential pressure chamber 16 is acted upon via the lead line 18 from the pressure chamber 11 of the pressure booster 5 by the pressure level prevailing in the high-pressure reservoir 2, so that once again the rail pressure level builds up in the differential pressure chamber 16. As a consequence, the pressure in the

high-pressure chamber 20 of the pressure booster 5 drops to the pressure level prevailing in the high-pressure reservoir 2. Since the pressure level prevailing in the high-pressure reservoir 2 now also prevails in the closing chamber 21 of the injection valve 6, both the first nozzle needle part 31 and the second nozzle needle part 32 of the coaxial nozzle needle 30 are in pressure equilibrium. Because of the action on the first nozzle needle part 31 and the second nozzle needle part 32 by respective spring elements 38 and 39, the nozzle needle parts 31, 32 of the coaxial nozzle needle 30 are put in their closing position. This terminates the injection. The closing speed at which the first nozzle needle part 31 and the second nozzle needle part 32 are pressed into their closing positions can be varied by way of the inlet throttle restriction 23, which is received in the differential pressure chamber line 22 from the differential pressure chamber 16 to the closing chamber 21 of the injection valve 6. Once the pressure equilibrium has been brought about, the piston 12, including both ~~a~~ the first partial piston 13 and ~~a~~ the partial piston 14, in a one-piece or separate embodiment, is returned to its outset position by the restoring spring 17. For carrying away leakage flows through the needle guides, a relief 46, 47, 48 into a leak fuel line 49 is provided at the coaxial nozzle needle 30 in the variant embodiment of the invention in Fig. 1, and by way of this line the reference leakage can be carried away to the low-pressure region of the fuel injection system.

Please replace paragraph [0039] with the following amended paragraph:

[0039] In the basic state shown in Fig. 2, the magnet valve 8, which may also be embodied as a piezoelectric actuator or may be a directly controlled valve or a servo valve, is switched in such a way that the pressure prevailing in the pressure chamber 11 of the pressure booster 5, which is equivalent to the pressure in the high-pressure reservoir 2, also prevails in the differential pressure chamber 16 via the fuel line 19. In addition, the pressure level in the high-pressure reservoir 2 is present in the closing chamber 21 of the injection valve 6 via the

line ~~7~~ 4 and the branch line 60. Via the check valve line 25, beginning at the closing chamber 21, the high-pressure chamber 20 of the pressure booster 5 is acted upon by the rail pressure level, that is, the pressure level that prevails in the high-pressure reservoir 2. Via the high-pressure line 28, which begins at the high-pressure chamber 20 of the pressure booster 5, the pressure level prevailing in the high-pressure reservoir 2 moreover prevails in the nozzle chamber 29 of the injection valve 6 as well.

Page 15, please replace paragraph [0040] with the following new paragraph:

[0040] The metering of the fuel to the end toward the combustion chamber of the injection valve 6 is effected by means of a pressure relief of the differential pressure chamber 16 of the pressure booster 5, by activation of the magnet valve 8, embodied for instance as a 3/2-way valve. The differential pressure chamber 16 is as a result disconnected from the system pressure ~~subjection~~ and is made to communicate with the low-pressure line 9, which begins at the magnet valve 8. As a result, the pressure in the differential pressure chamber 16 drops, causing the pressure booster 5 to be activated; that is, because of the pressure prevailing in the pressure chamber 11, which is equivalent to the pressure level of the high-pressure reservoir 2, the piston 12 moves downward, causing the pressure in the high-pressure chamber 20 and, via the high-pressure line 28, in the control chamber 29 of the injection valve 6 as well to rise. As a result, the hydraulic force acting on the first nozzle needle part 31, that is, on its pressure shoulder 35, increases, and the nozzle needle part 31 moves vertically upward; however, inside the closing chamber 21 of the injection valve 6, a stroke limitation 33 is provided, which limits the maximum vertical stroke of the first nozzle needle part 31. The first nozzle needle part 31 is designed such that its opening ensues whenever a first opening pressure $p_{ö,1}$ is reached in the nozzle chamber 29. As long as the differential pressure chamber 16 of the

pressure booster 5 remains pressure-relieved, the pressure booster 5 is activated. The pressure in the nozzle chamber 29 and at the tip of the second nozzle needle part 32 is increased in the further course of injection, up to a maximum pressure level p_{max}. If the level of the injection pressure reaches a second opening pressure ~~$p_{\ddot{o},2}$~~ $\underline{p_{\ddot{o}2}}$, the second nozzle needle part 32 opens, and as a result the further, second injection cross section 43 is opened, and an injection of fuel into the combustion chamber 7 of the self-igniting engine is now effected both via the first injection cross section 42, which is uncovered by the first nozzle needle part 31, and via the further, second injection cross section 43, which is uncovered by the second nozzle needle part 32. The first opening pressure ~~$p_{\ddot{o},1}$~~ $\underline{p_{\ddot{o}1}}$ is determined essentially by the hydraulically effective surface areas, that is, by the design of the pressure shoulder 35 in the nozzle chamber 29 and the dimensioning of the end face 36 of the first nozzle needle part 31, and is thus directly proportional to the pressure level that prevails in the high-pressure reservoir 2. The second opening pressure $p_{\ddot{o},2}$ is likewise determined essentially by the hydraulic pressure face 40 at the tip of the second nozzle needle part 32 and by the dimensioning of the end face 37 which points toward the closing chamber 21 of the injection valve 6. The second opening pressure ~~$p_{\ddot{o},2}$~~ $\underline{p_{\ddot{o}2}}$ is likewise proportional to the pressure level prevailing in the high-pressure reservoir 2.

Page 17, please replace paragraph [0044] with the following amended paragraph:

[0044] In the variant embodiment of Fig. 2, the piston 12 of the pressure booster 5 can again be embodied in either a single part or in multiple parts. The restoring spring 17, which is received in the differential pressure chamber 16 of the pressure booster 5, can be disposed either in the pressure chamber 11 of the pressure booster 5 or in the high-pressure chamber ~~12~~ 20 of the pressure booster 5.

Please replace paragraph [0046] with the following amended paragraph:

[0046] At a time t_1, the rail pressure p_{rail} prevails in the high-pressure reservoir 2. At a second time, marked t_2, the first opening pressure ~~$p_{\ddot{o},1}$~~ $\underline{p_{\ddot{o}1}}$ is reached, so that the first nozzle needle part 31 opens in response to the hydraulic force acting on the pressure shoulder 35 of the first nozzle needle part 31 in the control chamber 29. At the first injection cross section, which is uncovered by the opening motion of the first nozzle needle part 31, a first injection quantity 74 is established, which during the opening phase between t_2 and t_3 of the first nozzle needle part 31 reaches the combustion chamber 7 of the self-igniting engine. Parallel to the pressure increase established in the nozzle chamber 29 or in the high-pressure chamber 20 of the pressure booster 5 (see curve course 70), the pressure in the differential pressure chamber 16 of the pressure booster 5 drops as represented by the curve course 71. If during the further pressure increase 70 from the first opening pressure $p_{\ddot{o},1}$ to the second opening pressure $p_{\ddot{o},2}$, the switching pressure of the second nozzle needle part 32 is reached, then this nozzle needle part opens at a time t_3 (see bottom graph in Fig. 3). At switching time t_3, the first nozzle needle part 31, because of the hydraulic force acting in the nozzle chamber 29 on the hydraulic surface area 35, that is, the pressure shoulder, remains in its open position in accordance with the stroke course identified by reference numeral 72 and assumes its maximum stroke position h_{max}, which is defined by the stop 33 embodied in the closing chamber 21. At time t_3, because the second opening pressure ~~$p_{\ddot{o},2}$~~ $\underline{p_{\ddot{o}2}}$ is being exceeded, the second nozzle needle part 32 opens as indicated by the stroke course represented by reference numeral 73. As a result, the quantity of fuel injected into the combustion chamber 7 of the self-igniting engine increases in accordance with the quantity identified by reference numeral 75; that is, in addition to the first injection cross section 42, uncovered by the first nozzle needle part 31, an injection of fuel now takes place into the combustion chamber 7 of the

engine via not only the first injection cross section 42 but also the further, second injection cross section 43, which because of the stroke motion of the second nozzle needle part 32 is now uncovered. At time t_4, by means of the magnet valve 8, the differential pressure chamber 16 of the pressure booster 5 is again put in communication with the system pressure, so that in accordance with a pressure buildup in the differential pressure chamber 16, a pressure reduction ensues both in the control chamber 29 and in the high-pressure chamber 20 of the pressure booster 5, and accordingly, as described above, the opening pressures at the hydraulic surface areas 35 and 40 acting on the first nozzle needle part 31 and the second nozzle needle part 32, respectively, collapse, and the closing forces operative in the closing chamber 21, that is, the spring acting on the first nozzle needle part 31, and the pressure level, prevailing in the closing chamber 21 via the lines 4 and 60, of the first nozzle needle part 31 is moved into its closing position, as a result of which the injection is ended.

Page 19, please replace paragraph [0049] with the following amended paragraph:

[0049] From the magnet valve 8, analogously to what Figs. 1 and 2 show, a low-pressure-side return 9 branches off, which discharges into the fuel container 80. The check valve 24, by way of which filling of the high-pressure chamber 20 of the pressure booster 5 - assuming a switching position of the magnet valve 8 as shown in Fig. 4 - ~~**is effected as also in the variant embodiment of the invention shown in Fig. 4,**~~ is received in a branch from the fuel line 19 to the differential pressure chamber 16 of the pressure booster 5.

Please replace paragraph [0050] with the following amended paragraph:

[0050] The injection valve 6 in the variant embodiment of Fig. 4 includes a coaxial nozzle needle 30, which has a first nozzle needle part 31 and a further, inner nozzle needle part 32. The second, inner <u>needle part</u> 32 of the coaxial nozzle needle 30 has an associated, separately

pressure-relievable nozzle spring element 83, which can be pressure-relieved on the low-pressure side via the interposition of a throttle restriction ~~86~~ 85 into the low-pressure lines 9 and from there into the fuel container. Via a lead line, including a further throttle restriction 85, from the high-pressure line 19 to the differential pressure chamber 16, a first nozzle spring element 82 that acts on the first nozzle needle part 31 is filled.

Page 20, please replace paragraph [0053] with the following amended paragraph:

[0053] In the basic state shown in Fig. 4, the pressure level in the pressure chamber 11 of the pressure booster 5 prevailing in the high-pressure reservoir 2 also prevails at the magnet valve 8 via the line ~~in~~ 16 from the differential pressure chamber 16 of the pressure booster 5, in the first nozzle spring element 82 of the injection valve 6 and, via the check valve 24, in the high-pressure chamber 20 of the pressure booster 5, ~~as well as~~ and in the nozzle chamber 29 of the injection valve, which chamber can be acted upon by high pressure via the fuel lead line 28. The pressure-relievable second nozzle spring element 83 above the face end of the second nozzle needle part 32 communicates directly with the return 9 into the fuel container 80 of the fuel injection system via the throttle restriction 86 and the relief line 88, bypassing the magnet valve 8. In the basic state shown in Fig. 4, the pressure booster 5 is not active; that is, no pressure boosting is occurring. By means of the restoring spring 17, the piston 12 is returned to its outset position. Filling of the high-pressure chamber 20 is effected, in the open direction of the check valve 24, counter to the closing element 26, which is acted upon by a spring element 27 inside the check valve 24 and is supplied through the line 19 between the magnet valve 8 and the differential pressure chamber 16 of the pressure booster 5. By means of the pressure prevailing in the first nozzle spring element 82, which corresponds to the pressure prevailing in the high-pressure reservoir 2, a hydraulic closing force is exerted on the

first nozzle needle part 31, that is, the outer part of the coaxial nozzle needle 30. In addition, via the spring elements 38 and 39, a closing spring force is exerted on the first nozzle needle part 31 and the further, second nozzle needle part 32, respectively. For this reason, the pressure level prevailing in the high-pressure reservoir 2 can always be present in the nozzle chamber 29, without opening of the first nozzle needle part 31 having occurred. Not until the pressure inside the nozzle chamber 29 rises above the pressure level of the high-pressure reservoir 2, which is attained by activation of the pressure booster 5, does the first nozzle needle part 31 open and the injection begin.

Page 21, please replace paragraph [0054] with the following amended paragraph:

[0054] The metering of the fuel is effected by means of the pressure relief of the differential pressure chamber 16, analogously to the variant embodiments of Figs. 1 and 2. This is effected by an activation of the magnet valve 8, embodied for instance as a 3/2-way control valve. A disconnection of the differential pressure chamber 16 of the pressure booster 5 and from the system pressure, that is, the pressure level prevailing in the high-pressure reservoir 2, and a communication of the differential pressure chamber 16 with the return 9 to the fuel container 80, or in other words to the low-pressure side are effected. The pressure in the differential pressure chamber 16 decreases, and as a result the pressure booster 5 is activated, and via an increase in the pressure level in the high-pressure chamber 20, an increase in the pressure in the nozzle chamber 29 is effected, which in turn acts on the hydraulic surface area 35 of the first nozzle needle part 31 and causes its upward motion counter to the spring force of the spring element 38 in the opening direction. As long as the differential pressure chamber 16 of the pressure booster 5 is pressure-relieved, the pressure booster 5 remains activated and compresses the fuel in the high-pressure chamber 20. The compressed fuel

flows from there to the nozzle needle, that is, to the nozzle chamber 29, and from there via the annular gap 50 in the direction of the end toward the combustion chamber of the first and second nozzle needle part 31 and 32. The first nozzle spring element 82 remains pressure-relieved, but at the needle tip of the second nozzle needle part 32, an injection pressure level builds up. As a result, a pressure force acting in the opening direction of the second nozzle needle part 32 is established at the hydraulically effective surface area 40 (pressure shoulder) at the tip of the second nozzle needle part 32. Since the second nozzle spring element 83 associated with the second nozzle needle part 32 is still pressure-relieved as before, the spring ~~elements~~ element 39 ~~follow~~ follows as a closing force on the second nozzle needle part 32. By way of suitable dimensioning of the pressure shoulder ~~80~~ 35 relative to the closing force of the spring element 39, a switching pressure beyond which the inner, second nozzle needle part 32, guided in the coaxial nozzle needle 30, opens can be established, analogously to what the variant embodiment in Fig. 1 shows. If the injection pressure is low, below the switching pressure that can be set, the first nozzle needle part 31 opens, while the second nozzle needle part 32 remains closed. Accordingly, an injection is effected via the first injection cross section 42. As the injection pressure increases further above the switching pressure of the second nozzle needle part 32, the second nozzle needle part 32 opens in addition to the already-open first nozzle needle part 31, and as a result an injection into the combustion chamber 7 of the engine is effected via both the first injection cross section 42 and the further, second injection cross section 43.

Page 23, please replace paragraph [0056] with the following amended paragraph:

[0056] To avoid leakage flows through the nozzle holes, a relief line in the form of a bore 84 is passed through the second nozzle needle part 32 and extends from a recess 48 into the

second nozzle control chamber 83. In the variant embodiment shown in Fig. 1, the following three reference leakage flows ensue in the state of repose, that is, when the rail pressure level is applied in the closing chamber 21 and in the nozzle control chamber 29. Between the injector body, that is, its part toward the combustion chamber, and the first nozzle needle part 31, which is embodied with the diameter d_1, a first reference leakage flow between the nozzle chamber 29 and the leak fuel groove 46 and a reference leakage flow between the closing chamber 21 and the leak fuel groove 46 are established, while on the other hand a further leakage flow is established between the first nozzle needle part 31 and the second, inner nozzle needle part 32 in terms of Fig. 1, and this further reference leakage flows away into the leak fuel line 49 via the leak fuel groove 48, which is embodied on the inner part of the coaxial nozzle needle 30. The second nozzle needle part 32 is embodied with a diameter d_2, which may be between 2 and 2.5 mm, while the first nozzle needle part 31 is embodied with an outer diameter d_1 that may be between 4 and 4.5 mm. Thus two reference leakage flows occur at the large diameter d_1, and one reference leakage flow occurs at the small diameter d_2. In the variant embodiment that is shown in Fig. 4, a leak fuel groove 48 is analogously also received between the second nozzle needle part 32 and the first nozzle needle part 31 surrounding it, and this leak fuel groove may communicate with the longitudinal bore 84 by way of which the leak fuel can be carried away. A first reference leakage flow occurs with the small diameter d_1 between the nozzle chamber 29 and the leak fuel groove 48. A second reference leakage flow also occurs with the ~~small~~ diameter d_2 between the nozzle control chamber 82 and the leak fuel groove 48. Because of the smaller diameter of the second nozzle needle part 32, of 2 to 2.5 mm, a marked reduction can be attained with this variant embodiment, compared to leak fuel volume flows previously.

Please add the following new paragraph after paragraph [0056]:

[0057] The foregoing relates to preferred exemplary embodiments of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended.

Please delete pages 25, 26 and 27.